

1 have to pay for the service and the long distance call
2 themselves. And I remember when I got my first Alaskanet
3 account from Hooper Bay, my phone bill -- I ran up about a
4 \$1,000 phone bill a month. And that didn't last very long I'll
5 tell you. And -- but -- yeah, we've got people -- I mean, you
6 ask people how do you get internet? They're out in the
7 village. Oh, AOL, you know. Well, they're paying by the
8 minute for a long distance call for maybe, maybe, a 14.4
9 connection.

10 Are your current needs for advanced services being met?
11 If not, how and why are your current needs unmet. Well, as far
12 as USF contracts are concerned, schools are receiving fairly
13 adequate bandwidth. The first year of contracts resulted in
14 essentially 56 K circuits. Now all schools and districts have
15 either got 128's or 256's. In addition, the Lower Kuskokwim
16 School District brings a full T-1 in Bethel, which is then
17 split up between multiple school locations and the, excuse me,
18 school district's central office, using Part 15 wireless
19 modems.

20 And I'd just like to say on that it would be really
21 helpful for schools around the country as well as for the
22 E-Rate funding from a conservation perspective if the
23 Commission would take a very, very serious look at making
24 wireless modems an eligible purchase as last mile equipment.
25 It's unconscionable that school districts are not allowed to

1 help save money on the E-Rate costs.

2 How do you think advanced services will be used to deliver
3 education in five years? Well, there's little doubt in my mind
4 that in five years school districts will be making extensive
5 use of increased bandwidth and substantially newer technologies
6 to deliver enriched curriculum to individual students as well
7 as to entire classes. Interactive video along with large
8 graphical interface devices like white boards will be in
9 general use. Video and content streaming will be the norm. I
10 think probably there will be some big either privately owned or
11 collective through school districts serve rooms here in
12 Anchorage just to facilitate that. But, you know, at the
13 present rate of deployment by Alaska's carriers and LECs on a
14 cost/benefit, i.e. profitable, basis under current costs, I do
15 not believe that there will be ubiquitous internet access
16 available across the state in five years.

17 I just want to talk real quick about peering. I said that
18 video teleconferencing doesn't work very well when you have 20
19 hops to go less than a mile in Bethel between a classroom at
20 the University of Alaska and Lower Kuskokwim District central
21 office, because the route goes from Bethel to Fairbanks to
22 Seattle to San Jose, California, and at one time it went to
23 Chicago, and then back up through the fiber cable to Anchorage
24 and then out to Bethel. It's my understanding that there are
25 maybe some peering agreements pending between at least GCI and

1 the University.

2 But I would encourage the Commission, both Commissions
3 actually to examine closely the issue of what I understand to
4 be AT&T's refusal, World Net's refusal to peer with anybody
5 unless they're, you know, like an OC-500 carrier. And it's an
6 impediment to Alaska's economic development, and it's an
7 impediment to the deployment and use of advance services by the
8 education community, K-12 through college, that we have got
9 these ridiculously long interstate routes for IP carriage.
10 There's no technical reason for it, there's no economic reason
11 for it, and there's no moral reason for it.

12 LT. GOV. ULMER: Mark, I'm going to have to.....

13 MR. SPRINGER: Sure.

14 LT. GOV. ULMER:cut you off, but thank you very
15 much. I appreciate it. I'd like to turn to the Commissioners
16 to see if they have some questions at this point of any of the
17 panelists?

18 COMMISSIONER NESS: Thank you. I very much appreciate
19 your comments and thoughts. A quick question. Has anyone
20 thought about using IFTS/MDS for delivery of broadband
21 communications? Is that at all feasible here?

22 MR. SPRINGER: I don't know what it is.

23 COMMISSIONER NESS: Okay.

24 MR. SPRINGER: I would say, no, I haven't.

25 COMMISSIONER NESS: Okay. This is typically with

1 universities, it's a ca -- sort of a cable type service, cable
2 channel service where the University would lease a portion of
3 their capacity, their instructional/informational capacity to
4 cable companies or wireless cable companies, and the wireless
5 cable companies could provide lots of additional channels, and
6 that's sort of a shared use of the spectrum.

7 Well, we've recently made that spectrum available at 12.5
8 gigahertz I believe it is, to -- for use -- I'm sorry, not
9 12.5, 2.5 gigahertz, for two-way digital communications. And
10 so now it's one of those bands that's being looked at for
11 third-generation mobile services, but it also could provide
12 fairly attractive fixed wireless broadband services.

13 I just was curious to see if any of the universities or
14 the educational institutions that you've been dealing with have
15 licenses to do that, whether that's a possibility. I don't
16 know how far in distance it travels. My guess is, you know,
17 probably 10 or 12 miles, but it could be beyond that in radius.

18 MR. SMITH: The University has not ex -- there's been
19 discussions, but they've been very preliminary for rural areas.
20 We are discussing that with one company, Wireless Cable, that
21 offers those kinds of services, but that primarily has been
22 looked at within the urban areas. We would love to try and do
23 that in the rural areas, but we haven't found a model that
24 works yet.

25 COMMISSIONER NESS: It may not extend far enough. As you

1 were talking, I just was wondering whether or not this was
2 perhaps yet another option that had recently been made
3 available.

4 Also, I want to follow up on the wireless modems, Mark.

5 MR. SPRINGER: Sure.

6 COMMISSIONER NESS: I was under the impression when we
7 wrote our rules that we were trying to be technology neutral.
8 Can you describe the problem that you're having with wireless
9 modems?

10 MR. SPRINGER: Well, sure, apart from the fact that
11 they're not an eligible purchase under USF. You can buy
12 telephone switches, but you can't buy wireless modems.

13 In 1997 during your visit to Bethel and Hooper Bay,
14 Commissioner Ness, the Distance Delivery Consortium was ready,
15 using an NTIATF grant to roll out an aggregated bandwidth
16 model, what we were calling the village area networks, using
17 unlicensed wireless local loops to provide T-1 last mile
18 connections from a single village pop, most likely the school
19 house to the health clinic, the library, and what we would hope
20 would be USF eligible local governments, tribal and municipal.
21 Regrettably, the local exchange carrier contended that our
22 solution to the thorny last mile question, which obviously
23 would have not required recurrent costs, since we would be
24 using public access spectrum for public purposes would be,
25 quote, duplicating existing facilities, unquote, i.e., their

1 copper plant.

2 The fact remains, however, that the members of the DDC
3 recognized the importance of -- to network efficiency and
4 bandwidth conservation and the judicious application and use of
5 public dollars, i.e., USF funds several years ago. The only
6 objection to our original solution was that it would save money
7 for public and tribal agencies.

8 MS. BROWN: May I try this?

9 COMMISSIONER NESS: Yes.

10 MS. BROWN: Let me just try to correct the record a little
11 bit. The covered services do not include the switch. What
12 they do include is the internal.....

13 UNIDENTIFIED VOICE: (Indiscernible - simultaneous
14 speech).....

15 MS. BROWN:network and thus some routers are
16 covered. And the tension here has been between making sure
17 that the district or the school could put together its own
18 internal network while at the same time not sending federal
19 education funds, if you will, to the switch.

20 Now, to the extent that you're talking about a wireless
21 modem on the internal system of the district, I think that's
22 something that one could look at and raise. But I just wanted
23 to clarify that the switch really is not covered.

24 MR. SPRINGER: Yeah, there's.....

25 MS. BROWN: Okay. Yes. Okay.

1 MR. SPRINGER:20 (ph) pages on the list and I
2 exaggerated.....
3 MS. BROWN: Right. But.....
4 MR. SPRINGER:a little bit, but.....
5 MS. BROWN: But it's an important issue, because it's one
6 where the Commission drew a line, and so it -- you know, for
7 funding purposes, it's important to think about what's on one
8 side and the other side of the line.
9 COMMISSIONER NESS: Okay. Because I do recall that within
10 a school or within a building, for example, wireless solutions
11 are perfectly appropriate solutions. In fact, they were used
12 in a number of places where there was asbestos in the
13 school,.....
14 MS. BROWN: Right.
15 COMMISSIONER NESS:and it was the only way that you
16 were going to be able to get those connections, which is why I
17 studiously avoid saying wiring schools, and usually use
18 connecting classrooms. But that -- you're saying that what you
19 were looking at was something not within the school, but from
20 the school to another location?
21 MR. SPRINGER: Well, actually in some cases school
22 districts that had multiple locations within a village would
23 have used some of that wireless equipment to connect their
24 locations, but again even -- let's just use that as an example.
25 Let's say a school district -- well, the Lower Kuskokwim School

1 District in Bethel purchased out of pocket wireless modems to
2 connect multiple schools in the central office to their single
3 pop. They had to go out of pocket, because wireless radio
4 equipment is not an eligible purchase on the USF approved list.

5 There's -- you know, the list that everybody's seen, and
6 the list is 20 pages long, wireless modems are an unapproved
7 purchase. And there are num -- and in the Lower Yukon School
8 District, they've used wireless equipment to connect multiple
9 rooms. You know, a lot of our village schools, we have the
10 original school, and they've had to add on outer buildings,
11 and.....

12 COMMISSIONER NESS: Yeah. Well, I'm going to check into
13 that, because it -- again, depending upon what it's being used
14 for, there ought to be a way of being technology neutral and
15 being efficient, and wireless is one of the most efficient
16 systems for a lot of circumstances. So I'll try to check into
17 it and see whether we fully understand what the rules are
18 attempting to accomplish, and whether or not there needs to be
19 a change there.

20 Similarly, we have the -- at five gigahertz, the NII
21 band, and I don't know if anybody is using that unlicensed band
22 to communicate back and forth between schools or between
23 facilities.

24 MR. SPRINGER: Well, most of the equipment that's in --
25 being used in Alaska is 900 megahertz, and 1.2 gigahertz,

1 unlicensed equipment.

2 COMMISSIONER NESS: Uh-huh.

3 MR. SPRINGER: As far as I know, nobody's using.....

4 COMMISSIONER NESS: Maybe that the equipment.....

5 MR. SPRINGER:anything different -- higher.

6 COMMISSIONER NESS:is not yet available at a
7 reasonable cost, and that's another thing.....

8 MR. SPRINGER: Uh-huh.

9 COMMISSIONER NESS:that I'm taking away from the
10 conversations that I've had here in Alaska to go back and check
11 on. You're giving me a real laundry list of things to check
12 on, but I'm delighted to have that laundry list.

13 LT. GOV. ULMER: Nan, do you have anything?

14 COMMISSIONER THOMPSON: Yeah, I do, I could ask --
15 Mr. Cary, you said during your remarks that you were concerned
16 about what the future was going to be for distance education,
17 and we are, too. That's why we're here. What I'm hoping for
18 is some practical suggestions from you, as someone who I know
19 to have been in the trenches in a couple of different places in
20 the state, what can we as regulators and policy makers do to
21 make it happen, to make it be moving in the direction it should
22 be?

23 MR. CARY: Thanks, Commissioner Thompson. The number one
24 issue that we seem to run into is the school districts are in
25 the business of K-12 education, and while they do have

1 technical, for instance, on staff to support their -- just
2 their internal networks, they don't have the technical
3 capability, nor really have the resources to invest in that to
4 implement some of the technologies required to take advantage
5 of these circuits for the delivery of distance education.

6 COMMISSIONER THOMPSON: Uh-huh.

7 MR. CARY: And we very strongly feel that in order for
8 distance education in Alaska to be successful, it needs to
9 become a service, as in the infrastructure to support the
10 delivery of online courses, and streaming audio and video
11 content, and even two-way video, that those need to become
12 services that maybe even potentially are funded under E-Rate
13 rather than just the connectivity, because the connectivity is
14 great if you've got technical folks. If -- to implement
15 complex applications beyond that, it's a real barrier.

16 COMMISSIONER THOMPSON: Thank you.

17 LT. GOV. ULMER: I might just note briefly on that point,
18 when we were walking through the Noatak School, I guess it was
19 yesterday.

20 COMMISSIONER THOMPSON: Yeah, it was yesterday.

21 LT. GOV. ULMER: Like yesterday. I spoke with a teacher
22 who was in on Sunday doing a little bit of homework, as
23 teachers often do on Sundays, and I asked him who took care of
24 their telecommunications needs in the village, in the school.
25 And he said, well, of course, we don't have anybody on staff to

1 -- we can't pay anybody to do that, but it just so happens that
2 our kindergarten teacher, who's really young, he's just out of
3 college, knows a lot about computers, you know, so in his spare
4 time he kind of does what needs to be done in this school.

5 I think it makes your point. I mean, many of the schools
6 are too small, or they couldn't afford somebody, or the school
7 budgets are too tight. And if you're really lucky and you
8 know, you know, happen to have somebody who knows how, great.
9 If you're in a school district where you've got a central
10 office that's convenient and staff to be able to do it, great.
11 If not, what do you do? So what if you're wired? Being wired
12 isn't enough.

13 COMMISSIONER THOMPSON: Now I'm reminded of, I think it
14 was Saturday for this one, but when we were at -- in the
15 clinic, and they were talking about, oh, we saw a demonstration
16 of the next generation in terms of telemedicine applications in
17 the villages where it's a touch screen technology, to make it
18 easy for people who don't have a lot of technical training,
19 their training is in delivering medical services, to apply and
20 use the technology. It was wonderful because it was set up so
21 you could touch the screen and get the different applications
22 you needed. And maybe that's the innovation, the missing link
23 in education.

24 COMMISSIONER NESS: Or maybe the missing link is to get
25 one 12 year old from each village.

1 COMMISSIONER THOMPSON: That's right.
2 UNIDENTIFIED VOICE: Yeah. Yeah.
3 COMMISSIONER NESS: And somehow send those 12 year olds to
4 be trained, and then at least you have those 12 year olds for
5 an extended period of time because they adapt so quickly.
6 LT. GOV. ULMER: Other comments? Yes, Dave?
7 MR. FAUSKE: Just -- that's a very good point. There are
8 situations, and getting back to this school custodian.....
9 LT. GOV. ULMER: Uh-huh.
10 MR. FAUSKE:paradigm I gave somewhat clumsily. When
11 a Cessna 206 leaves Barrow, and there's a technician from ASTAC
12 in it, and there's a technician from NSS, and there's a
13 technician from GCI or AT&T, and the plane lands in Wainwright
14 or Point Lay, and the three people get out and walk over to the
15 central office or an adjoining building, and stand side by side
16 and tweak dials, and then get back on the airplane a day and a
17 lot of dollars later and fly back to Barrow, that's not right.
18 And I think in the vein of Senator Stevens' recent letter
19 about seeking some kind of a consensus solution here, those
20 support services as Martin pointed out, are vitally
21 needed,.....
22 LT. GOV. ULMER: Uh-huh.
23 MR. FAUSKE:but we also have a situation where cost
24 exceeds price, and competition's going to drive price to cost,
25 which is higher. And we need to find the maximum number of

1 efficiencies and cooperative effort I think. So it may be a 12
2 year old, because they probably have the edge on the
3 technology, but it ought not to be duplicate services in high-
4 cost areas.

5 LT. GOV. ULMER: Okay.

6 MR. FAUSKE: Thank you.

7 MR. BECKLEY: Yeah. To underscore what they're saying,
8 for instance, in our district we have six schools, four of them
9 are under 20 students, so they're two teacher schools. It's a
10 phenomenon that I call techno-paralysis. And our mission in
11 education is to teach kids. That's what we do. But our
12 schools are becoming sophisti -- so technologically
13 sophisticated and dependent that technology can threaten to
14 become your mission. And when one thing goes wrong, your
15 entire mission comes to a grinding halt. And that certainly is
16 one thing that we look for in a vendor in our E-Rate proposal,
17 is someone who can take that piece away. We would rather put
18 our dollars toward education.

19 And one of the other things that I think is becoming very
20 apparent in our region as it is in the country, and that is
21 that we need to develop IT workers within our regions.
22 Virtually every dollar, technology dollar that we spend in the
23 Aleutians East as in other areas, goes out, whether it's to buy
24 a computer, whether it's to buy internet access, repair
25 computers, buy software. You name it, the dollars go out. And

1 that is a real home-grown industry, and a real opportunity for
2 our students.

3 LT. GOV. ULMER: Uh-huh. Any other questions on.....

4 MS. BROWN: Could I.....

5 LT. GOV. ULMER:(indiscernible)?

6 MS. BROWN:just for a moment? I just want to thank
7 you. After spending about five years on getting the E-Rate
8 program in place and fighting what was at times a very bitter
9 battle in Washington, a very bitter personal battle, we were
10 held up as doing something actually wrong when, indeed, we
11 thought what we were doing is very right, that to sit here and
12 hear the -- your remarks that in fact the lights have been
13 turned on is really just a gift to us, so I thank you for your
14 comments.

15 Let me just say this to you, though, having still every
16 year going through this battle about what you call the people
17 battle, and I think you're right, it's about people on the
18 other end. But understand that these issues, these policy
19 issues get translated into money matters. And so I think it's
20 important what we heard over today about aggregating demand,
21 using capacity efficiently, about using new technologies that
22 can be use amongst and between users, because in the end it
23 will come back to us to ask whether these dollars are being
24 spent wisely, efficiently, and are they the best use. And so I
25 think it's important for the user community to also put their

1 heads into the sort of economic community. Are we doing this
2 well? Are we doing it right? Are we doing it the best we can?
3 So I would keep urging that analysis.

4 And the other point is one that I loved that you made,
5 that in fact the state really is -- has two different
6 characteristics, and one is a wired kind of fiber network
7 characteristic, and the other is not. And that resonated with
8 me that perhaps while we think about what tweaks we can make,
9 that that might be a place we might look. That if -- there's
10 really a vast difference in what we mean by quote/unquote
11 rural. Do we mean rural, or do we really mean insular? That
12 maybe we can think about what the public policy issues should
13 be there.

14 And then finally, on the internet applications I would
15 suggest that when we look at IP telephony, for instance, and
16 the new applications over IP, that that may be an area where
17 distance learning can take off. I've seen the commercial
18 applications for IP telephony with data and voice combined.
19 And particularly here, once that connection is in, the question
20 is whether that wouldn't be another way to think about the
21 delivery of voice with data. And we'd love to talk with you
22 about that.

23 We prepared an extensive report for Senator Stevens on
24 this very issue, and I suspect that it's going to come up again
25 very soon in that AT&T is now talking about a commercial

1 offering of IP telephony, and so it's going to get back on the
2 table, and it seems to me that particularly in rural areas that
3 we ought to be thinking about how those technologies can be
4 used to deliver the kind of services you're thinking about.

5 LT. GOV. ULMER: Well, thank you very much to our panel.
6 It was a very interesting panel. We want to thank you also for
7 what you're doing, each and every one of you, to make distance
8 education a reality in Alaska. I appreciate your leadership,
9 and thanks for joining us today.

10 We'll take a ten-minute break before we begin our final
11 panel on economic development. Thank you.

12 (Off record - 2:13 p.m.)

13 2055

14 (Tape change)

15 Tape 4

16 0015

17 (On Record - 2:27 p.m.)

18 LT. GOV. ULMER: Our next panel, the economic development
19 panel, thank you for joining us. Once again, I will just
20 introduce you one at a time and after I do your introduction if
21 you'd share about five minutes or so of observations, answering
22 some of the questions we asked or whatever you would like to
23 share with us.

24 I'll begin today with Joseph Davis, a long time resident
25 of rural Alaska. He's general manager of CISI, Watermark

1 Consulting. His company is in a joint venture with Calista to
2 provide business and technology service to all of Alaska.
3 Joseph Davis.

4 MR. DAVIS: Thank you, Lt. Governor and thank you
5 Commissioner Thompson and Commissioner Ness and the FCC staff
6 and RCA and all of you out there. Is the glare too much off of
7 my head, is it okay out there? Okay.

8 My name's Joseph Davis and I have a joint venture with
9 Calista Corporation for business and technology development in
10 Alaska. Of course, we're focusing primarily on the Calista
11 region to start with, but we're looking for a larger area and
12 that includes information technology infrastructure. So I want
13 to start off today by giving you my bottom line first and then
14 get into a couple of details.

15 The bottom line is sustainable economic development in a
16 common telecommunications infrastructure. So what that means
17 is sustainable economic development has to happen for any of
18 this to work. One of the questions is what will -- I think
19 that's number four actually or regulator's three. How can the
20 regulators be assured that our efforts to deploy advanced
21 services will enhance economic opportunities and one is with
22 the concept of sustainable economic development and a common
23 infrastructure.

24 Schools are not in the business for providing internet
25 services, neither are clinics, but a common infrastructure

1 service that could lease out those services to the schools and
2 other third party, nonprofits, et cetera is, I think, really
3 what we really have to look at in such a small village kind of
4 setting in rural Alaska.

5 So, one, how does the ability -- excuse me, the
6 availability or lack of access to advanced services in rural
7 communities affect economic development? Do you know one of
8 the people that I deal with is with WAVE and WAVE Stores,
9 that's Western Alaska Village Enterprises, and they provide
10 groceries to villages all over the Calista and actually beyond
11 the Calista region.

12 This fellow to update the data base in those village
13 stores that have computers puts it on two identical floppies,
14 puts the floppies in an envelope. They're mailed to Bethel and
15 they're put on a plane to go out to the village. The reason
16 that he sends to identical ones is because one of the floppies
17 may die enroute. There is no return data. There's no
18 connection for a two-way communication, so the disk's always
19 going one way and not the other. That's a lack of services
20 that we can see right there. In stores that are owned WAVE is
21 a network of groceries stores in Western Alaska that could
22 seriously use the internet for their businesses.

23 I got a call from Chevak -- excuse me, Chefornak, a fellow
24 wanted to sell dog sleds. He'd been on the web. He checked
25 out web sites. We wanted my company to build a web site.

1 Well, that was great except the only place he could access it
2 was at the school which is, of course, we know not exactly the
3 way that we're going to do business.

4 I recently spoke to a woman from Gambell who wants to
5 provide an art and crafts and jewelry web site, can't
6 communicate with the people in Gambell. She actually lives in
7 Anchorage, wants to sell them outside through a web site and
8 can't communicate with the artists there. So the lack of
9 availability is extreme in a commercial sense, where they can
10 walk next door to the school and surf. It's quite ironic.

11 How can regulators be assured of efforts being used? And
12 that is by involving the people economically on the local
13 level, on the local and regional basis because we have regional
14 corporations as well as local groups. Including in that
15 training which, I think, is prime for Eric (ph) right now to
16 provide those kinds of services. And education, which you can
17 get online once you have those abilities to get online and
18 small business and economic development needs to happen
19 concurrently.

20 I've lived in the Bush 20 years, I've seen many programs
21 be given to the Bush, large infrastructures produced, but
22 without the training and the long term economic sustainability,
23 it's a short time fix. It's a -- you get a job and you build a
24 building or you build a road and so you've got a new snow-go
25 for the next couple winters and that's about what you have to

1 show for it. So it really is small business training, economic
2 development on a local and a regional basis.

3 The last question was how will demand for advanced
4 services increase? Well, we've seen in the Lower 48 two
5 spectacular events happening, my mother and my father are on
6 the web. And if that doesn't say that's something's going to
7 happen in the world then nothing will, but if people are
8 calling from Chefnak for web sides to sell dog sleds we can
9 see that it's going to take off.

10 I'd ask you to look at Toksook Bay, they have the last
11 mile, it's wireless and they have so many great skills that you
12 can see evinced in their web sites. It's not particularly a
13 full commerce site, but they have the skills to produce it and
14 it's a wonderful example of what could happen, so.....

15 LT. GOV. ULMER: Thank you very much. Our next panelist
16 will be Jack Rhyner. Jack is the president of TelAlaska which
17 is a family of companies that provide local and long distance,
18 cable television, internet and other network services to
19 customers throughout rural Alaska. Jack.

20 MR. RHYNER: Thank you. I thought I would address my
21 opening remarks to what I thought was the most important
22 question which you asked us, which was how will the demand for
23 advanced services increase during the next five years in rural
24 communities? There's absolutely no reason to suspect that
25 demand for advance services will be any less in rural areas

1 than it will be in urban areas. In fact, once deployed the
2 demand may even be greater in rural areas on a per capita basis
3 because there are so few alternatives for education,
4 entertainment and economic development.

5 I can tell you from experience that once we deployed Dial-
6 Up access in rural communities the demand for access and for
7 more bandwidth was almost insatiable. Our customer to modem
8 ratio is less than half that of a normal urban ISP because
9 everyone that has access wants to be on long all of the time.

10 I'm sure that as we complete Beta testing for both cable
11 modems and DSL and deploy these services we will see the very
12 same effect. Usage, which is a function of demand, has been
13 increasing almost exponentially on the network nationally.

14 In 1998 voice and data traffic achieved parity. By the
15 end of this year it is estimated that the data traffic will be
16 five times that of voice. By the end of the year 2005, it's
17 estimated that the data traffic will be 23 times greater than
18 that of voice. Given those things in Alaska we need to start
19 thinking in terms of shared advance network today.

20 The only way to deploy advanced services over the
21 satellite network with limited bandwidth available is to move
22 to a shared network configuration otherwise we're going to need
23 several more satellites up there and I think that's going to be
24 too expensive.

25 I think we really need to start thinking in terms of the

1 shared network. What we've been doing is trying to deploy
2 competing networks in an area that can't sustain the single
3 network and we've been trying to develop DAMA technology in the
4 Bush regions of Alaska and, unfortunately, all that does is
5 regionalize -- or, I mean, marginalize these regional areas and
6 the DAMA network will not lend itself to the extension of these
7 -- of advanced services.

8 One of the things we heard earlier about multiple hops, if
9 you have a regionalized DAMA area and you have to come in from
10 a real remote village into a hub and then hop again, that gives
11 you a double hop in advanced services. As we move into the
12 packet type networks, ATM frame relay just simply won't work
13 over that type of arrangement.

14 So I guess with that I'll close and wait for questions.

15 LT. GOV. ULMER: Thank you, Jack. Our next speaker will
16 be Tom Harris, president of Alaska Village Initiatives, Inc.
17 Alaska Village Initiatives, Inc. has been providing and
18 supporting economic development in Alaska for 32 years. It has
19 a 170 member organizations from all over the state of Alaska.
20 Tom.

21 MR. HARRIS: Thank you, Lt. Governor. We appreciate the
22 opportunity to visit like this and looking for more visits
23 online. As a company we have been involved in many adventures
24 in rural Alaska, most people remember us as the owners of the
25 AC Stores when we were the largest employer in rural Alaska.

1 The leadership of this organization is 17 members elected
2 from the communities at large, and those 17 members select six
3 other members from the urban community to help us with the
4 difficult decisions.

5 Some of the difficult decisions we've made recently is to
6 grab a hold of this thing called the internet and jump in with
7 both feet and we are. We see that because, quite frankly, many
8 of our members are jumping in ahead of us and we find ourselves
9 catching up with our more advanced villages.

10 In fact, that's the focus of this coming year's February
11 annual meeting when we will be looking at the village of the
12 21st century and trying to put in front of Alaska, rural
13 Alaska, what that village will look like in terms of its
14 schools, its utilities, its businesses. We can promise you
15 this, it will be a very different community than we know today.

16 And I'm real pleased to see Marvin Yoder, the city manager
17 of Galena here today. I visited his village, let's see,
18 February, and it was a tremendous site. I felt I walked into
19 Alaska's version of the Jetsons there for a while there was so
20 much going on.

21 But there is a lot of excitement and our children have a
22 lot to be excited about. From the visits with the elders in
23 the community of Galena, they have a lot to be excited about as
24 well, but the issue has to be access and if we don't provide
25 that access then we suffer.

1 Our organization is working on things like private land
2 wildlife management, bringing the technology of land management
3 from the Lower 48 up here and negotiating an agreement with the
4 State and private land owners to manage the wildlife on private
5 lands for the benefit of all concerned. This is a billion
6 dollar industry in the Lower 48. It is actually a billion
7 dollars industry up here, but unfortunately Alaska is not
8 harvesting that benefit. It's leaving us because we don't have
9 proper access to the tools. Our goal for the next year will be
10 to provide those tools.

11 We are looking at issues such as safe water, treated wood,
12 fire suppression, all of those items we've been able to access
13 information on and send to our members over the internet where
14 they have access and that is the key. There's a tremendous
15 amount of growth that has to occur and here's -- here's a real
16 -- in a real nutshell here's our concern.

17 The fish farming industry that we all have read about in
18 the papers, we all assume that we -- we know that it's taking a
19 big bite out of Alaska. We don't know really how much. In
20 1985 the fish farming industry had 5.8 percent of the market.
21 In 1998 it had 70 percent of the market.

22 In the '97 and '98 , if you recall, the Bristol Bay
23 fishery was on the ropes. That fishery is now coming back and
24 we are now seeing that market share, that huge market share
25 that we lost being now over sold in new salmon. As such, in

1 the next five years we feel we're going to see a dramatic drop
2 in prices in salmon and we have 100 villages out there who have
3 no other non-government source of revenue other than the salmon
4 industry.

5 During the same period of time we saw approximately 490
6 people a year moving out of rural communities. That's a
7 village the size of McGrath dying every year. And, you know,
8 we have an impetus to get this thing turned around. There's
9 tremendous incentive out there, if not then I'm afraid we've
10 going to see more of the same. And I'm looking forward to the
11 outcomes of this organization's meetings and opening up the
12 bandwidth so rural Alaska can take part in that new economy.
13 Thank you.

14 LT. GOV. ULMER: Thank you very much. Our next panelist
15 stepped in at the last moment to fill in for Bob Poe,
16 Commissioner of Department of Administration who had to stay in
17 Juneau. We really appreciate Don May's willingness to do this.
18 Don is director of an MBA program in telecommunications
19 management at Alaska Pacific University. Don is a former
20 member of the State Utilities Commission so he's a little
21 familiar with the regulatory process and, again, we really
22 appreciate your willingness to join us at this late date as
23 fill-in.

24 MR. MAY: Thank you, Lt. Governor, I wish I had worn a
25 tie, but I thought I'd be off today, at least I shaved.